

3. Remark/Discussion of Issues

Claims

By this amendment, claims 1-13 have been revised to more clearly recite the claimed subject matter and for reasons discussed below. Claims 1-13 are pending in the application, which Applicants respectfully submit are in condition for allowance.

Amendments to the Specification

By this Amendment, paragraph [0099] of the specification, as published in U.S. Patent Application Pub. No. 2006/0127710, has been revised to change "FIG. 11" to ---FIG. 12---, to be consistent with the written description. Applicants submit that no new matter has been introduced by this amendment.

Allowable Claims – Claims 9, 13

Applicants note with appreciation that the Examiner has indicated that claims 9 and 13 are allowable, if rewritten in independent form including all of the limitations of the respective base and intervening claims. *See* Office Action, p. 5.

Although Applicants do not acquiesce in the rejection of independent claim 1, from which claims 9 and 13 indirectly depend, as being unpatentable over FOX et al. (U.S. Patent No. 5,974,657), discussed below, Applicants have rewritten claims 9 and 13 in independent form merely in order to expedite passing the allowable claims of the present application to issue. In particular, Applicants have rewritten claim 9 to substantially incorporate the subject matter of claims 1, 6 and 7, and have rewritten claim 13 to substantially incorporate the subject matter of claims 1 and 11 (although not claim 8). Applicants respectfully submit that independent claims 9 and 13, as rewritten, are patentable over the applied art, and request the same to be passed to issue.

35 U.S.C. § 112 Rejection, Second Paragraph – Claims 4, 8, 11, 13

The Office Action of December 22, 2008, rejects claims 4, 8, 11 and 13 under 35

U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. *See* Office Action, p. 2. In view of amendments to these claims, withdrawal of the rejection under 35 U.S.C. § 112, second paragraph, is respectfully requested.

35 U.S.C. §102/§103 Rejections – Claims 1-4, 6-8, 10

The Office Action of December 22, 2008, rejects claims 1-4, 6-8 and 10 under 35 U.S.C. § 102(b) and, in the alternative, under 35 U.S.C. § 103(a), as being unpatentable over FOX et al. (U.S. Patent No. 5,974,657). Applicants respectfully traverse the rejections because FOX et al. does not disclose, teach and/or suggest every element of these claims.

Applicants rely at least on the following standards with regard to proper rejections under 35 U.S.C. § 102. Notably, anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *See, e.g., In re Paulsen*, 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990); *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Alternatively, anticipation requires that each and every element of the claimed invention be embodied in a single prior art device or practice. *See, e.g., Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992). For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *See, e.g., Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991).

With respect to the rejection in the alternative under 35 U.S.C. § 103, a *prima facie* case of obviousness has three requirements. First, the prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, requires some reason that the skilled artisan would modify a reference or to combine references. *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332 (Fed. Cir. 2005). The Supreme Court has, however, cautioned against the use of “rigid and mandatory formulas” particularly with regards to finding reasons prompting a person of ordinary skill in the art to combine

elements in the way the claimed new invention does. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007). Second, the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the same time the invention was made. In other words, a hindsight analysis is not allowed. *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200. Lastly, the prior art reference or combination of references must teach or suggest all the limitations of the claims. *In re Wilson*, 424 F.2d 1382 (C.C.P.A. 1970).

More particularly, in order to establish obviousness by combining or modifying the teachings of the prior art to produce the claimed invention, there must be some teaching, suggestion or motivation to do so. See MPEP § 2143.01(I) (citing *In re Kahn*, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006)). "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art." MPEP § 2143.01(III) (citing *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007)).

Applicants' silence on certain aspects of the rejection is by no means a concession as to their propriety. Rather, because the applied art fails to disclose at least one feature of the claims, for at least the reasons discussed below, Applicants respectfully submit that the rejections are improper and should be withdrawn.

Claim 1

Claim 1 is directed to a method of manufacturing a device having a magnetic layer-structure, and recites as follows:

"... forming the magnetic layer-structure; heating the magnetic layer-structure with an electric current, the electric current comprising a current pulse having a duration such that no substantial heat transfer from the magnetic layer-structure to an environment of the magnetic layer-structure takes place, so that a temperature of the environment before and after the current pulse is substantially the same; and selecting a physical process in the

magnetic layer-structure based on the current pulse, a duration and an amplitude of the current pulse being adapted to an activation energy of the selected physical process."

Claim 1 was amended to substantially include a portion of claim 3, reciting that a physical process in the magnetic layer-structure is selected based on the current pulse, where a duration and an amplitude of the current pulse is adapted to an activation energy of the selected physical process. Applicants submit that FOX et al. does not disclose at least this feature.

For example, in rejecting claims 1 and 3, the Office Action cites FOX et al., col. 3, lines 66-67, col. 4, lines 1-13, and col. 11, lines 7-50. See Office Action, p. 4. Generally, these portions of FOX et al. are directed to applying heat to a pinning layer using a current pulse. However, there is no disclosure of a physical process being selected or duration and amplitude of the current pulse being adapted to an activation energy of the selected physical process, as recited in claim 1.

Further, the Office Action does not identify specific steps or elements of FOX et al. that specifically disclose selecting a physical process or adapting duration and amplitude of a current pulse to an activation energy of the selected physical process. Rather, the Office Action summarizes the language of eight claims (*i.e.*, claims 1-4, 6-8, 10) and cites two lengthy sections of FOX et al., without associating specific portions of these sections with the various claim features. See Office Action, pp. 3-4. Therefore, Applicants respectfully submit that the rejection fails to comply with MPEP § 706, which states, in part:

The goal of examination is to clearly articulate any rejection early in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity (emphasis added).

The rejection likewise fails to comply with 37 CFR § 1.104(c)(2), which provides:

In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly

explained and each rejected claim specified (emphasis added).

Accordingly, the Examiner has not established a *prima facie* case of obviousness (or anticipation) with respect to claim 3 or with respect to claim 1, as amended. Applicants respectfully submit that the rejections of claim 1 under 35 U.S.C. § 102(b) and 103(a) should be withdrawn.

Further, in light of the failure of the Office Action to comply with MPEP § 706 and 37 CFR § 1.104(c)(2), if further rejections are provided in subsequent official communications, Applicants respectfully submit that such rejections cannot be made properly final.

Claims 2-4, 6-8 and 10

Claims 2-4, 6-8 and 10 depend, directly or indirectly, from claim 1, and are therefore allowable for at least the reasons discussed with respect to claim 1, as well as in view of their additional recitations. Accordingly, the rejections of claims 2-4, 6-8 and 10 under 35 U.S.C. § 102(b) and 103(a) should be withdrawn.

35 U.S.C. § 103 Rejections – Claims 5, 11, 12

The Office Action of December 22, 2008, rejects claim 5 under 35 U.S.C. § 103(a) as being unpatentable over FOX et al. in view of VOEGELI et al. (U.S. Patent No. 5,974,757), and rejects claims 11 and 12 under 35 U.S.C. § 103(a) as being unpatentable over FOX et al. in view of KUIPER et al. (WO 00/79298). Applicants respectfully traverse the rejections because no proper combination of FOX et al. and VOEGELI et al. teaches or suggests every element of claim 5, and no proper combination of FOX et al. and KUIPER et al. teaches or suggests every element of claims 11 and 12, respectively.

Claim 5

Claim 5 depends from claim 1, and is therefore allowable for at least the reasons discussed above with respect to claim 1, as well as in view of its additional recitations. Further, the Examiner relies on VOEGELI et al. only to disclose a sequence of current pulses. *See* Office Action, p. 4. Therefore, VOEGELI et al. does not cure the deficiencies of FOX et

al., discussed above. Accordingly, the rejection of claim 5 under 35 U.S.C. § 103(a) should be withdrawn.

Claims 11 and 12

Claims 11 and 12 depend indirectly from claim 1, and are therefore allowable for at least the reasons discussed with respect to claim 1, as well as in view of their additional recitations. Further, the Examiner relies on KUIPER et al. only to disclose multiple devices including a Wheatstone bridge configuration. *See* Office Action, p. 5. Therefore, KUIPER et al. does not cure the deficiencies of FOX et al., discussed above. Accordingly, the rejection of claims 11 and 12 under 35 U.S.C. § 103(a) should be withdrawn.

CONCLUSION

In view of the foregoing explanations, Applicants respectfully request that the Examiner reconsider and reexamine the present application, allow claims 1-13 and pass the application to issue. In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Van C. Ernest (Reg. No. 44,099) at (571) 283-0720 to discuss these matters.

Respectfully submitted on behalf of:

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Date: March 17, 2009

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